

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018862**Date Inspected:** 22-Dec-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1730**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance Inspector (QAI) Bert Madison was present at Yerba Buena Island in California between the times noted above for observations relative to the work being performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below.

- 1). OBG Field Splice 8E/9E Weld ID: E1, Face A (FCAW-G)
- 2). OBG Access Penetration Insert Weld at 5E-PP29.5-E2 (SMAW)
- 3). OBG Access Penetration Insert Weld at 8E-PP61.5-E2-SW (SMAW)
- 4). OBG Field Welding of East Line Lifting Rod Access Penetration Inserts (SMAW)
- 5). OBG Field Welding of West Line Lifting Rod Access Penetration Inserts (SMAW)
- 6). OBG Field Splice 7W/8W Weld ID: E1 & E2, Face B – (FCAW-G)
- 7). OBG Field Splice 8E/9E Weld ID: A1 through A4, Face A – (QA verification)

- 1). OBG Field Splice 8E/9E Weld ID: E1, Face A (FCAW)

The QAI periodically observed AB/F approved welder Song Tao Huang (ID 3794) assisted by AB/F approved welder Jin Quan Huang (ID 9340) performing welding of fill and cover passes at the OBG Field Splice 8E/9E Weld ID: E1. See photo below. The welding was performed per the Flux Cored Arc Welding (FCAW-G) process in the 3G (vertical) position. The QAI observed QC Inspector Fred Von Hoff were present periodically to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-3042B-1. The welding of cover passes was completed. The QAI observed that the work at this location appeared to be in general compliance with contract documents.

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### 2). OBG Access Penetration Insert Weld at 5E-PP29.5-E2 (SMAW)

The QAI periodically observed AB/F approved welder Hua Qiang Hwang (ID 2930) performing pick-up welding at the interior of the OBG Lifting Rod Access Penetration Insert Weld identified as 5E-PP29.5-E2. The welding per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position was to repair undercut areas discovered by QC. QC Inspector Steve McConnell was present periodically to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1010 rev. 1. The QAI observed that the work at this location was completed and appeared to be in general compliance with contract documents.

### 3). OBG Access Penetration Insert Weld at 8E-PP61.5-E2-SW (SMAW)

The QAI periodically observed AB/F approved welder Xiao Jian Wan (ID 9677) performing back welding per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position on the insert weld 8E-PP61.5-E2-SW. QC Inspectors John Paglierio and Fred Von Hoff were present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1010 rev-1. The QAI observed that the work at this location was completed and appeared to be in general compliance with contract documents.

### 4). OBG Field Welding of East Line Lifting Rod Access Penetration Inserts (SMAW)

Interior: OBG 5E PP31 E3 weld 1

The QAI periodically observed AB/F approved welder Salvador Sandoval (ID 2202) performing air carbon arc back gouging, back grinding and back welding at OBG 5E PP31 E3 weld 1 per the Shielded Metal Arc Welding (SMAW) process in the 4G (overhead) position. QC Inspector Steve McConnell was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1110B rev. 1. Welding was completed and the QAI observed that the work at this location appeared to be in general compliance with contract documents.

### 5). OBG Field Welding of West Line Lifting Rod Access Penetration Inserts (SMAW)

Exterior: OBG 1W PP9.51 W4 weld 1 and 2

The QAI periodically observed AB/F approved welder Mike Jimenez (ID 4671) performing welding of fill and cover passes at OBG 1W PP9.51 W4 weld 2 per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position. QC Inspector Mike Johnson was periodically present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1070. Welding of fill and cover passes was completed at weld 2 and fill pass welding was in process at weld 1. The QAI observed that the work at this location appeared to be in general compliance with contract documents.

### 6). OBG Field Splice 7W/8W Weld ID: E1 & E2, Face B – (FCAW-G)

The QAI periodically observed AB/F approved welder Rory Hogan (ID 3186) assisted by AB/F approved welder Jeremy Dolman (ID 5042) performing fill and cover pass welding per the Flux Cored Arc Welding (FCAW-G) process in the 4G (overhead) position. See photo below. The QAI periodically observed QC inspector Steve McConnell was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-3110-4. The welding of cover passes was not completed at this location and the work appeared to be in general compliance with contract documents.

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7). OBG Field Splice 8E/9E Weld ID: A1 through A4, Face A – (QA verification)

The QAI performed verification Ultrasonic Testing (UT) of 10% of the lengths of OBG Field Splice 8E/9E Weld ID: A1-A4. The OBG Field Splice 8E/9E Weld ID: A1 – A4 verified by the QAI appeared to be in general compliance with contract documents. See Ultrasonic Testing Report Form TL-6027 generated by the QAI on this date. The QAI noted that OBG Field Splice 8E/9E Welds A1-A5 have been painted except for repair areas. The QAI performed UT Verification testing at repair areas only.



### Summary of Conversations:

Conversations on this date with Quality Control Inspectors were general in nature and pertained to locations of welding and QC activities and locations of welds released to the QAI for verification testing.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy (510) 385 5910, who represents the Office of Structural Materials for your project.

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**Inspected By:** Madison,Bert

Quality Assurance Inspector

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**Reviewed By:** Mertz,Robert

QA Reviewer